

*Journal of Forensic Social Work*, 7:111-122, 2023

ISSN: 1936-928X print & 1936-9298 online



## **Policy & Change: An Analysis of Veteran Perpetuated Mass Shootings & Social Work's Call to Action**

Christopher J. Collins, Ph.D.

*Salem State University, School of Social Work*

*Public mass shootings are relatively rare occurrences in the United States. As such, focusing on individual-level factors to develop a prevention framework is ill-advised. However, starting with veterans, as an overrepresented group of offenders, may be an important step to determining and developing policies that work to prevent mass shootings. The Veteran's Administration (VA) is the largest employer of social workers in the United States and employs more than 15,000 master's level social work professionals. Policy and training changes made to the VA system have the potential to begin reducing incidents of public mass shootings. The purpose of this study was to determine whether veteran-status or the phenomenon of leakage influences the number of casualties in public mass shootings. Further, a renewed call-to-action is issued for social workers engaged with veterans, military personnel, and their families. A negative binomial regression analysis was utilized to examine 168 public mass shootings events in the United States from 1966 until 2019. While veteran status was not associated with increased casualty this does not underscore the importance of policy changes that limit access to firearms for high-risk people. Further, because leakage was statistically significant in explaining casualty rates in mass shootings additional training related to duty to warn may be necessary for social workers engaged in therapeutic relationships with veterans, military personnel, and their families. The results of the negative binomial regression offer insights into what effective policy interventions may look like to reduce mass shootings.*

Keywords: negative binomial regression; public mass shooting; firearms; veterans; leakage

## INTRODUCTION

The United States Department of Veterans Affairs (2021) is the largest single employer of master's prepared social work professions in the United States. Recent estimates suggest that more than 15,000 social workers are employed by the VA (U.S. Department of Veterans Affairs, 2021). These social workers provide services to military personnel, veterans, and their families in areas such as education, child welfare, domestic violence, substance misuse, and mental health (Savitsky et al., 2009). Social workers engaged in the mental health treatment of veterans are responsible for providing confidential and evidence-informed treatments. Likewise, these social workers are tasked with informing the proper authorities if a threat of harm is indicated in a confidential setting.

The Department of Veterans Affairs estimates that approximately 19 million veterans live in the United States, making up nearly 7% of the total population (National Center for Veterans Analysis and Statistics, 2022). Among Iraq and Afghanistan veterans, it is estimated that almost 40% have been diagnosed with a mental health condition (Seal et al., 2009). This number is nearly double that of the general population (National Alliance on Mental Illness, 2020). In addition to having higher than average rates of mental health issues (Fortney et al., 2016), veterans have also been found to be overrepresented as perpetrators of public mass shootings (Peterson & Densley, 2019). While there is no detailed data on the prevalence rates of veteran offenders informing social workers of their intent to harm others, it has been established that reporting concerning behaviors and statements to law enforcement produces hesitancy in many, even when they are overtly present (Silver et al., 2018). This informed intent, intentional or unintentional, is called leakage (O'Toole, 2000). A premeditation behavior often occurring in the advanced planning stages of an attack (Lankford & Silver, 2020), leakage appears to be a common feature of mass murderers (Hempel et al., 1999).

Despite the serious, negative consequences of public mass shootings (APA, 2019) and a 2019 call to action to end gun violence issued by the National Association of Social Workers (Lanyi et al., 2019), social workers often lack the proper training to screen for access to firearms. They may subsequently miss opportunities to identify and report potential public mass shooting events that have been leaked to them (Slovak et al., 2008). Likewise, leakage has been previously connected to military status, despite these populations often being tasked with maintaining secrecy and confidentiality in their work. For example, research suggests that currently enlisted military personnel (Lankford et al., 2019) and veterans (Collins & Clark, 2021) have engaged in leakage behavior prior to episodes of gun violence.

Previous public mass shooting research has aided the public, and researchers deepen their understanding of offenders. For example, we know that public mass shooters with documented mental health conditions produce deadlier attacks, especially when coupled with an assault-style rifle (Silva & Greene-Colozzi, 2021a). However, questions related to lethality and social workers' role as behavioral health providers to veterans remain. The following research question guided the current study: does leakage and/or veteran status influence the number of casualties in a public mass shooting event? Additionally, a renewed call-to-action for social workers engaged with military personnel, veterans, and their families is issued with strategies for screening for access to firearms included.

### Background

The current study defines a public mass shooting as one that includes four or more people being killed (Federal Bureau of Investigation (FBI), 2018; Peterson & Densley, 2019). This conservative definition of a public mass shooting is also leveraged by Peterson and Densley (2019) in their data, which has been analyzed for this study. However, it is important to note that there is no widescale agreement nor a uniform definition of what constitutes a public mass shooting. Likewise, until an agreement can be reached on what constitutes a mass shooting, we cannot truly solve the problem (Schildkraut, 2021).

Protocols and training opportunities should be leveraged to educate social workers engaged with military personnel and veterans, given their overrepresentation in the public mass shooting offender data (Collins & Clark, 2021; Lankford et al., 2019). These opportunities should expand upon what is already known about common offender characteristics. For example, offenders most often identify as white, are overwhelmingly male, and have an average age of 33.2 years (Schildkraut, 2021). However, this knowledge alone will neither prevent public mass shootings nor compel social workers to act on leakage threats.

Understanding threats of leakage, as well as the seriousness of the role military personnel and veterans may play in public mass shootings, combined with tangible next steps for social workers, is important to reducing public mass shootings and linking vulnerable military personnel and veterans with proper services. The following literature review will address common demographic characteristics of public mass shooting offenders and the phenomenon of leakage to aid social work practitioners working with military personnel, veterans, and their families in identifying possible individuals at high risk for committing a public mass shooting.

## DEMOGRAPHIC CHARACTERISTICS

As stated previously, offenders often identify as white males (Schildkraut, 2021). These details are unsurprising, given that, according to the Department of Defense (2021), white men make up the majority of active-duty service members. Indeed, recent estimates indicate that of the more than 1.3 million active-duty military personnel, 82.8% identify as male, and 68.9% identify as white (Department of Defense, 2021). Further, most active-duty service members are 25 years old or younger (Department of Defense, 2021). Therefore, the likelihood of one of the more than 15,000 social workers employed by the VA working with this demographic is high (U.S. Department of Veterans Affairs, 2021).

### Military History

In terms of public mass shootings, previous studies have examined differences between blue- and white-collar perpetrators (Peterson & Densley, 2019; Silva, 2019; Silva & Greene-Colozzi, 2019), as well as employed and unemployed shooters (Lankford et al., 2021; Pah et al., 2017). While previous research has included military history as a variable of interest (Silva, 2021; Silva & Greene-Colozzi, 2021b), there is a dearth of research exploring an association between a specific occupation (e.g., military) and rates of casualty in public mass shootings. Like other professions charged with protecting the public, military personnel and veterans often undergo advanced tactical skills training as a condition of their employment. Given the nature of their work, it is unsurprising that their propensity to own firearms is greater than that of the general population (Anestis & Capron, 2016; Hepburn et al., 2007; Khazem et al., 2015). Increased access to firearms may contribute to greater lethality in public mass shootings, as motivated offenders have less effort to exert to obtain their preferred means (Lankford & Silver, 2020).

### Age

Previous research has further found that older perpetrators often shoot fewer victims than their younger counterparts (Blair et al., 2020). Likewise, most mass shooters fall between 20 and 39 years old (Schildkraut, 2021). Among active-duty military service members, more than 600,000 are 25 years old or younger (Department of Defense, 2021).

### Leakage

Coined by O'Toole (2000), leakage refers to the intentional or unintentional disclosure of an offender's plan to another person, either in person or through written communication. Leakage has historically occurred through written communications (e.g., letters, journal entries) and direct communication

with others (Meloy & O'Toole, 2011). Moreover, directly communicating statements to friends and family remains the most prevalent form of leakage (Silver et al., 2018), whether in person or through the internet on various social media platforms.

Behaviorally, leakage is a premeditation behavior that often occurs in the advanced planning stages of an attack (Lankford & Silver, 2020). Interestingly, leakage has previously been connected to military history, despite these populations often being tasked with maintaining secrecy and confidentiality in their work. For example, research suggests that currently enlisted military personnel (Lankford et al., 2019) and veterans (Collins & Clark, 2021) have engaged in leakage behavior prior to episodes of gun violence.

Leakage is among the most important clues that precede an act of targeted violence (Dudenhoefer et al., 2021; O'Toole, 2000). When leakage is shared with law enforcement or other official entities, public mass shootings are preventable (Daniels et al., 2007; Lankford et al., 2019; Madfis, 2020; Sarteschi, 2016; Stallings & Hall, 2019). However, those who learn of leakage threats are often hesitant to report this information, even when there is a clear and present danger (Silver et al., 2018).

In theory, social workers in a post-Tarasoff world feel an obligation to warn third parties of potential threats (Kagle & Kopels, 1994); however, this is far less common in practice. Social workers are not a homogenous group, and some social workers value the protection of human life more than client confidentiality or client autonomy (Dolgoff et al., 2012). Likewise, some social workers argue that client autonomy must always be preserved (Barsky, 2019; Reamer, 2018). In most circumstances, the default heuristic is to do nothing (Gigerenzer, 2008). Unsurprisingly, social workers faced with these challenging decisions often fail to act. Leakage is included in the current study due to its importance in the literature on targeted violence (e.g., mass shootings, lone actor terrorism), prevalence among offenders, and its connection to previous research on military personnel and veterans.

## CURRENT STUDY

This study attempts to make several new contributions to the field of forensic social work. First, although leakage is known to be common among offenders of public mass shooting events, it is yet unclear if there is any relation between leakage as a premeditation behavior, veteran/military status, and casualties in public mass shootings. This study will provide insight into over 40 years' worth of public mass shooting data to determine if leakage impacts casualty rates of public mass shootings. Second, this study will examine whether veteran offenders of public mass shootings produce more casualties because of their advanced tactical skills training.

Lastly, the study will use a negative binomial regression to test the effects of leakage and veteran status on the number of public mass shooting casualties across the United States. Negative binomial regression is the appropriate method for count data and is the suggested method for over-dispersed outcome variables which may have many zeros at one end and outliers at the other end (Zwilling, 2013).

### Dataset

Data for the current study were drawn from The Violence Project's database of mass shooters. This database operationalizes a public mass shooting as one involving four or more people being killed in a public space. These attacks must consist of three elements: (1) involvement of a firearm, (2) appeared to have struck random strangers or bystanders and not only specific, and (3) not occurred in a private or domestic setting or been primarily gang-related, drive-by shootings, hostage taking events, or armed robberies (Kelly, 2012).

The mass shooter database produced by TVP covers public mass shooting events from 1966 through 2019. It includes data from open-source material such as government reports, media reports, and previous scholarship, as is the precedent in the study of mass shootings (Fox & Levin, 1994; Langman, 2009; Lankford

& Hakim, 2011).

In addition to the above definition of a public mass shooter employed for case inclusion, only offenders who killed four or more victims were included in the current study. This four-fatality minimum corresponds with the definition employed by the FBI (2018). The current study also leverages a broader definition of lethality by including those injured in public mass shootings to determine an overall casualty count. Therefore, casualties in the context of the current study are the combined fatality and injured survivor totals.

The resultant dataset included 168 public mass shooters who had combined casualties of four or more victims between 1966 and 2019.

## Limitations

In their collection of publicly sourced data, TP relied upon sources that are limited, at best, and inaccurate, at worst. For example, TVP inaccurately captures the casualty count for the Las Vegas, Nevada, shooting excluded from the current study. This inaccuracy was not small either. In the dataset, the Las Vegas attack is noted as having 945 total casualties, whereas official reports put the actual count at 927, of which 471 are firearm-related (Schildkraut, 2021). An inaccuracy such as this calls into question the accuracy of the data and the sources from which the data are derived.

Due to the homogeneity of the sample, meaningful analyses of demographic variables, such as gender and race/ethnicity, could not be conducted. However, this also speaks to the overrepresentation of white men as offenders. Another limitation of the current study was the decision to aggregate casualties to include fatalities and injuries. Previous studies have taken the approach of analyzing rates of fatality and injury separately and together. Indeed, there is great value in analyzing the data in such a way. The decision to define casualties as aggregates of fatalities and injuries results from social work's ethical commitment to the dignity and worth of a person (National Association of Social Workers, 2021). The risk for cases where many lives were impacted by injury, not death, to be delegitimized was too significant to divide cases. The current study sought to place an equal value on all lives impacted by public mass shootings.

Lastly and importantly, emphasis must be placed on the fact that public mass shootings are rare. This is an unavoidable limitation for anyone engaged in research on public mass shootings. Prior studies have had samples of 9 (Newman & Fox, 2009) or 10 (Langman, 2009) offenders.

## Variable Description

For the negative binomial regression of public mass shooters across the U.S., the dependent variable was the aggregate total number of victims injured and the total number of victims killed in public mass shootings for the entire study period (1966-2019). The independent variables came from TVP's database of mass shooters and included age, veteran status, and leakage.

## RESULTS

Descriptive statistics appear in Table 1. Complete data was available for 168 offenders. The average offender age was 33.63 years (Min=11; Max=70; SD=11.98). In cases where the offender was under the age of 18 years old ( $n = 7$ ), the data were analyzed both with ( $n = 168$ ) and without ( $n = 161$ ), the youthful offenders, to examine any impact on the variables of interest. Likewise, the data were analyzed with ( $n = 168$ ) and without ( $n = 164$ ) cases with more than one offender ( $n = 4$ ).

**Table 1.** *Demographic Characteristics*

	<b>N</b>	<b>%</b>
<b>Gender</b>	168	100%
Male	165	98.2
Female	3	1.8
<b>Race/Ethnicity</b>	158	100%
White	89	56.3%
Black	34	21.5%
Latinx	14	8.9%
Asian	11	7%
Middle Eastern	7	4.4%
Native American	3	1.9%
<b>Military Service</b>	168	100%
Yes	42	25%
No	121	72%
Join, did not complete training	5	3%
<b>Service Branch</b>	46	100%
Army	18	39.1%
Navy	9	19.6%
Air Force	4	8.7%
Marines	10	21.7%
Coast Guard	1	2.2%
National Guard	4	8.7%
<b>Leakage</b>	168	100%
Yes	77	45.8%
No	91	54.2%

Outliers were present upon visual inspection of the data. To determine the degree to which outliers impacted the data, leverage, DFBeta, and DFFit values were calculated. It was determined that one case, the 2017 Las Vegas shooting, would be removed from the data, as it substantially skewed the analysis. The average casualty count for the remaining cases was 13.34. Upon removal of the outlier, the data remained over-dispersed (Skewness = 3.12; Kurtosis = 12.67). The assumption of homoscedasticity was violated after the regression standardized predicted value scatterplot was observed. Homoscedasticity is expected to be violated when one or more of the variables in the model are not normally distributed. The assumption of linearity appeared to have been met after a review of the scatterplot matrix. The assumption of independence also appeared to have been met (DW = 2.22), and autocorrelation was not problematic. The observed VIF and tolerance values in the coefficient's tables were within acceptable limits, and multicollinearity was not problematic.

Table 2 presents the negative binomial regression results for the effects of age, veteran status, and leakage on public mass shooting casualties. Age and leakage were both significant predictors in the model. As offender age increases, overall lethality decreases ( $p = <.001$ , CI: -.025, -.007). Similarly, lethality is reduced ( $p = <.05$ , CI: -.570, -.003) in cases where leakage is not prospectively identified. The employment variable, military service, was not statistically significant in the model. There were no statistically meaningful differences in casualty rates when including youthful offenders or excluding cases with more than one offender. However, when youthful offenders were included in the analysis, the leakage variable was a slightly more powerful predictor of casualty rates.

**Table 2.** *Negative Binomial Regression Results<sup>1</sup>*

Parameter	<b>B</b>	<b>S.E.</b>	<b>Wald Statistic</b>	<b>95% CI</b>
(Intercept)	2.90***	.248	137.02	(2.42, 3.39)
Age	-.016***	.005	11.40	(-.025, -.007)
Leakage	-.286*	.145	3.92	(-.570, -.003)
Military Service	-.159	.152	1.09	(-.458, .140)

\*  $p < .05$ , \*\*  $p < .01$ , \*\*\*  $p < .001$

## DISCUSSION

The fact that veterans and military personnel, despite their advanced tactical skills and firearms training, do not produce more casualties in mass shootings should not underscore the reality that they are overrepresented among offenders. This evokes two questions – (1) why are veterans overrepresented in these events, and (2) what can be done to reduce their involvement?

It is possible that given the large number of veterans with diagnosable mental health conditions (Fortney et al., 2016) that their involvement in public mass shootings should be unsurprising. Indeed, public mass shooters are commonly distinguishably different than other murderers in that they are commonly mentally ill (Ames, 2005; Duwe, 2007; Fox & Levin, 1994; Lankford & Hakim, 2011; Vossekui et al., 2002). However, while mental illness can aggravate existing personal and professional problems, most people who are mentally ill are nonviolent (Metzl & MacLeish, 2013). Perhaps more common in veterans is an inability to form meaningful social connections due to their mental health concerns. In addition to being a potential impetus for resentment and hostility in a person, poor social connectivity is also a common characteristic of public mass shooters (Langman, 2017; Newman et al., 2004). Military personnel and veterans often have enough social and behavioral problems to warrant evaluation and screening for threats of violence to themselves and others.

Screening is at the heart of what can be done to begin reducing veteran and military personnel's involvement in mass shootings. This population is known to be more likely to own firearms and to store them unsecured (Anestis & Capron, 2016; Hepburn et al., 2007; Khazem et al., 2015). This proximity and access may partially explain why veterans are overrepresented in offender data, as mass shootings rely on offenders having access to a gun. In general, access to firearms doubles the risk of homicide compared to those without such access (Anglemyer et al., 2014). Social workers have an opportunity to play a significant role in the screening and assessment of veterans and their access to firearms.

Practical screening approaches should consider that the default heuristic is to do nothing (Gigerenzer, 2008). This means that training is required to educate social workers about their roles in reducing veterans' firearm access in situational or developmental crises. Unfortunately, 75% of social workers have never received any formalized training on screening for access to lethal means such as firearms (Slovak et al., 2008). This is true of other professionals a veteran may work with within the VA

<sup>1</sup> Goodness of Fit Indices: Log Likelihood: -570.29, AIC: 1150.97, BIC: 1165.99

healthcare system. For example, nearly half of all clinical psychologists (Traylor et al., 2010), more than half of all psychiatrists (Price et al., 2007), and over 90% of emergency room physicians (Price et al., 2013) report never having received any formalized training on firearm safety and client counseling.

While no universal mandate exists for safety screenings (Roszko et al., 2016), recommendations have been suggested for training providers (Simonetti & Brenner, 2019). For example, discussions of firearms access in routine screenings and sessions have been suggested to help normalize these discussions by reducing the stigma associated with firearm ownership (Richards et al., 2021). Further, Simonetti and Brenner (2019) suggest training providers on the function of and terminology related to firearms and strategies for safe storage. Indeed, discussions related to safe storage increase the likelihood that such measures will be utilized and create a sustained culture of firearm safety (Anestis et al., 2021; Siegel & Rothman, 2016).

Finally, training in motivational interviewing for social workers engaged with firearm-owning veterans has been suggested as both a rapport-building and behavioral change opportunity (Brenner, 2019). Initially developed for patients experiencing ambivalence about substance misuse, motivational interviewing (MI) assesses a person's motivation and readiness to change their behaviors (Miller & Rollnick, 2012). For many veterans, firearms are likely to be a big part of their lives and may be used for personal protection or recreation, depending on where they reside. It is understandable, then, that they may be hesitant to reduce their access to firearms. Social workers have a unique opportunity to work with these clients to elicit behavioral change, given that more than 15,000 are employed by the VA and actively working with veterans and their families (U.S. Department of Veterans Affairs, 2021). Further, social workers are likely to work with veterans, military personnel, and their families for months and years at a time and given that many public mass shootings are meticulously planned weeks and months in advance (Capellan & Jiao, 2019), this presents yet another opportunity for social workers to intervene.

While training social workers to ask difficult questions about access to firearms is important, it cannot be the only solution. In some cases, a social worker intends to act on their duty to warn but has little to no knowledge of what comes next. In many states (e.g., California, Florida, Maryland, New York, etc.), a temporary civil process exists to disarm dangerous people from their firearms temporarily. The Extreme Risk Protection Order (ERPO) temporarily limits access to firearms and ammunition for people deemed "at-risk" (Frizzell & Chien, 2019). ERPO legislation exists state-by-state and may be implemented differently across states. However, in states with ERPO legislation, the legislation is effective. For example, the legislation has been cited in California as having potentially disarmed at least 21 "high-risk" people (Wintemute et al., 2019).

Similarly, ERPO has been used in Maryland to disarm people threatening school-based violence (Wiggins, 2019). The FBI has found that an average public mass shooter will display between four and five concerning behaviors prior to an attack (FBI, 2018). In some cases, one of these concerning behaviors may be leakage which the current study has shown is linked to deadlier mass shootings.

Leakage threats and policy (i.e., ERPO) are inexplicably related. For example, threats of leakage that are successfully identified may result in an ERPO, thereby removing the most lethal means of mass violence. Simply put – there are no public mass shootings when access to guns is restricted. One possible policy-driven solution is creating a national tip line for social workers to report concerning behaviors of clients that may result in an ERPO being issued. While such a tip line would require training (Hendrix et al., 2022), the idea is not new to the U.S., with the 988 number for suicide prevention being widely and regularly accessed.

## CONCLUSION

If mass shootings are to be prevented, society should resist the temptation to begin drawing parallels between events. Mass shootings are relatively rare occurrences, and while individual risk factors



(e.g., age, race, gender, etc.) can be retrospectively identified, there will always be outliers. Instead of an individual approach to solving mass shootings, we should focus on targeted solutions to reduce population risk.

Training programs such as those addressed above equip clinicians and others with the skills necessary to screen for access to firearms, and policies that reduce access are necessary for reducing mass shootings. There is no reason a high-risk person should have access to firearms. Importantly, however, there must be a balance between individual rights and public safety. As suggested above, training programs should focus on screening people for access and identifying safer storage options. Safe storage alone cannot be the only solution we offer frontline social workers and others responsible for screening and evaluating people at high risk.

In addition to safe storage training programs, policy-level changes are also needed. In 2022 the Bipartisan Safer Communities Act was passed and signed into law. The legislation was the first major piece of firearms safety legislation passed in nearly 30 years. One of the many fiscal opportunities afforded by the Bipartisan Safer Communities Act was an allocation of \$750 million for states to develop and enact extreme risk protection order legislation (Bipartisan Safer Communities Act, 2022). Likewise, we can conduct cross-national studies of public mass shooters to identify and learn from policies and practices that keep other countries safe (Lankford, 2016).

Though it may seem that permanently reducing firearm availability is the answer to the problem of mass shootings, it is unrealistic. The U.S. is fascinated by guns and is the only country in the world where civilian-owned firearms outnumber the total population (Karp, 2018). Instead, focusing on temporarily limiting access to firearms to high-risk people is a more feasible and, thus, realistic option. Mass shootings cannot occur when the means to commit them are unavailable.

## REFERENCES

- American Psychological Association. (2019, August 15). *One-third of US adults say fear of mass shootings prevents them from going to certain places or events* [Press release]. <http://www.apa.org/news/press/releases/2019/08/fear-mass-shooting>
- Ames, M. (2005). *Going postal: Rage, murder, and rebellion: From Reagan's workplaces to Clinton's columbine and beyond*. Brooklyn, NY: Soft Skull Press.
- Anestis, M., & Capron, D. W. (2016). The associations between state veteran population rates, handgun legislation, and statewide suicide rates. *Journal of Psychiatric Research, 74*, 30–34. <https://doi.org/10.1016/j.jpsychires.2015.12.014>
- Anglemeyer, A., Horvath, T., & Rutherford, G. (2014). The accessibility of firearms and risk for suicide and homicide victimization among household members. *Annals of Internal Medicine, 160*(2), 101–110. <https://doi.org/10.7326/m13-1301>
- Barsky, A. E. (2019). *Ethics and values in social work: An integrated approach for a comprehensive curriculum* (2nd ed.). New York, NY: Oxford University Press.
- Bipartisan Safer Communities Act 117 U.S.C § 2938 (2022).
- Blair, J. P., Sandel, W. L., & Martaindale, M. H. (2020). Correlates of the number shot and killed in active shooter events. *Homicide Studies, 25*(4), 335–360. <https://doi.org/10.1177/1088767920976727>
- Capellan., & Jiao, A.Y. (2019, October). *Deconstructing mass public shootings: Exploring opportunities for intervention*. <https://rockinst.org/wp-content/uploads/2019/10/10-24-19-Deconstructing-Mass-Shootings-Brief-1.pdf>
- Collins, C. J., & Clark, J. J. (2021). Using the TRAP-18 to identify an incel lone-actor terrorist. *Journal of Threat Assessment and Management, 8*(4), 159–173. <https://doi.org/10.1037/tam0000167>
- Daniels, J. A., Buck, I., Croxall, S., Gruber, J., Kime, P., & Govert, H. (2007). A content analysis of news reports of averted school rampages. *Journal of School Violence, 6*(1), 83–99. [https://doi.org/10.1300/j202v06n01\\_06](https://doi.org/10.1300/j202v06n01_06)
- Department of Defense. (2021). 2020 demographics: Profile of the military community. In *militaryonesource.mil*. <https://download.militaryonesource.mil/12038/MOS/Reports/2020-demographics-report.pdf>
- Dolgoff, R., Harrington, D., & Loewenberg, F. M. (2012). *Ethical issues for social work practice* (9th ed.). Belmont, CA: Cengage.
- Dudenhofer, A. L., Niese, C., Görgen, T., Tampe, L., Megler, M., Gröpler, C., & Bondü, R. (2021). Leaking in terrorist attacks: A review. *Aggression and Violent Behavior, 58*. <https://doi.org/10.1016/j.avb.2021.101582>
- Duwe, G. (2007). *Mass murder in the United States: A history*. Jefferson, NC: McFarland.
- Federal Bureau of Investigation (FBI). (2018). *Active shooter incidents in the United States in 2018*. Washington, DC: US Department of Justice
- Federal Bureau of Investigation (FBI). (2018). *A study of pre-attack behaviors of active shooters in the United States between 2000-2013*. Washington, DC: US Department of Justice
- Follman, M., Aronsen, G., Pan, D., & Caldwell, M. (2013). *US mass shootings, 1982-2012: Data from Mother Jones' investigation*. Retrieved from <http://www.motherjones.com/politics/2012/12/mass-shootings-mother-jones-full-data>
- Fortney, J. C., Curran, G. M., Hunt, J. B., Cheney, A. M., Lu, L., Valenstein, M., & Eisenberg, D. (2016). Prevalence of probable mental disorders and help-seeking behaviors among veteran and non-veteran community college students. *General Hospital Psychiatry, 38*, 99–104. <https://doi.org/10.1016/j.genhosppsych.2015.09.007>
- Fox, J. A., & Levin, J. (1994). Firing Back: The Growing Threat of Workplace Homicide. *The ANNALS of the American Academy of Political and Social Science, 536*(1), 16–30. <https://doi.org/10.1177/0002716294536001002>
- Frizzell, W., & Chien, J. (2019). Extreme risk protection orders to reduce firearm violence. *Psychiatric Services, 70*(1), 75–77. <https://doi.org/10.1176/appi.ps.201800418>
- Gigerenzer, G. (2008). Why heuristics work. *Perspectives on Psychological Science, 3*(1), 20–29. <https://doi.org/10.1111/j.1745-6916.2008.00058.x>
- Hempel, A. G., Meloy, J. R., & Richards, T. C. (1999). Offender and offense characteristics of a nonrandom sample of mass murderers. *The journal of the American Academy of Psychiatry and the Law, 27*(2), 213–225.
- Hendrix, J. A., Planty, M. G., & Cutbush, S. (2022). Leakage warning behaviors for mass school violence: An analysis of tips reported to a state school safety tip line. *Journal of Threat Assessment and Management, 9*(1), 33–51. <https://doi.org/10.1037/tam0000171>
- Hepburn, L., Miller, M., Azrael, D., & Hemenway, D. (2007). The US gun stock: Results from the 2004 national firearms survey. *Injury Prevention, 13*(1), 15–19. <https://doi.org/10.1136/ip.2006.013607>
- Kagle, J. D., & Kopels, S. (1994). Confidentiality after Tarasoff. *Health & Amp; Social Work, 19*(3), 217–222. <https://doi.org/10.1093/hsw/19.3.217>
- Karp, A. (2018, June). *Estimating global civilian-held firearms estimates*. Small Arms Survey. <https://www.smallarmssurvey.org/sites/default/files/resources/SAS-BP-Civilian-Firearms-Numbers.pdf>
- Kelly, R. (2012). *Active Shooter: Recommendations and analysis for risk mitigation-2012 Edition*. New York, NY: New

York City Police Department.

- Khazem, L. R., Houtsma, C., Gratz, K. L., Tull, M. T., Green, B. A., & Anestis, M. D. (2015). Firearms matter: The moderating role of firearm storage in the association between current suicidal ideation and likelihood of future suicide attempts among united states military personnel. *Military Psychology, 28*(1), 25–33. <https://doi.org/10.1037/mil0000099>
- Langman, P. (2009). Rampage school shooters: A typology. *Aggression and Violent Behavior, 14*(1), 79–86. <https://doi.org/10.1016/j.avb.2008.10.003>
- Langman, P. (2017). *School shooters: Understanding high school, college, and adult perpetrators*. Rowman & Littlefield Publishers.
- Lankford, A. (2013). *The myth of martyrdom: What really drives suicide bombers, rampage shooters, and other Self-Destructive killers*. St. Martin's Press.
- Lankford, A. (2016). Public Mass Shooters and Firearms: A Cross-National Study of 171 Countries. *Violence and Victims, 31*(2), 187–199. <https://doi.org/10.1891/0886-6708.vv-d-15-00093>
- Lankford, A., Adkins, K. G., & Madfis, E. (2019). Are the deadliest mass shootings preventable? An assesment of leakage, information reported to law enforcement, and firearms acquisition prior to attacks in the United States. *Journal of Contemporary Criminal Justice, 35*(3), 315–341. <https://doi.org/10.1177/1043986219840231>
- Lankford, A., & Hakim, N. (2011). From Columbine to Palestine: A comparative analysis of rampage shooters in the United States and volunteer suicide bombers in the Middle East. *Aggression and Violent Behavior, 16*(2), 98–107. <https://doi.org/10.1016/j.avb.2010.12.006>
- Lankford, A., & Silver, J. (2020). Why have public mass shootings become more deadly? *Criminology & Public Policy, 19*(1), 37–60. <https://doi.org/10.1111/1745-9133.12472>
- Lankford, A., Silver, J., & Cox, J. (2021). An epidemiological analysis of public mass shooters and active shooters: Quantifying key differences between perpetrators and the general population, homicide offenders, and people who die by suicide. *Journal of Threat Assessment and Management, 8*(4), 125–144. <https://doi.org/10.1037/tam0000166>
- Lanyi, B., Gonzales, R., & Wilson, M. (2019). *Tools for social workers to prevent gun violence: Safe storage of guns in the home, extreme risk protection orders, and other methods of gun violence prevention*. Socialworkers.org. <https://www.socialworkers.org/LinkClick.aspx?fileticket=YvR20CC6ORU%3d&portalid=0>
- Madfis, E. (2020). *How to stop school rampage killing: Lessons from averted mass shootings and bombings* (2nd ed. 2020 ed.). Palgrave Macmillan.
- Meloy, J. R., & O'Toole, M. E. (2016). The lone-actor terrorist and the TRAP-18. *Journal of Threat Assessment and Management, 3*(1) 37-52.
- Meloy, J. R., & O'Toole, M. E. (2011). The concept of leakage in threat assessment. *Behavioral Sciences & the Law, 29*, 513–527. <http://dx.doi.org/10.1002/bsl.986>
- Metzl, J., & MacLeish, K. (2013). Triggering the debate: Faulty associations between violence and mental illness underlie U.S. gun control efforts. *Risk and Regulation, 25*, 8-10.
- Miller, W. R., & Rollnick, S. (2012). *Motivational interviewing: Helping people change* (3<sup>rd</sup> ed.). Guilford Press.
- National Alliance on Mental Illness. (2020). *Mental health by the numbers | NAMI: National alliance on mental illness*. <https://www.nami.org/mhstats>
- National Association of Social Workers. (2021). *Code of ethics of the national association of social workers*. www.socialworkers.org. <https://www.socialworkers.org/About/Ethics/Code-of-Ethics/Code-of-Ethics-English>
- National Center for Veterans Analysis and Statistics. (2022). *VA.gov | Veterans Affairs*. [https://www.va.gov/vetdata/veteran\\_population.asp](https://www.va.gov/vetdata/veteran_population.asp)
- Newman, K., & Fox, C. (2009). Repeat Tragedy. *American Behavioral Scientist, 52*(9), 1286–1308. <https://doi.org/10.1177/0002764209332546>
- Newman, K., Fox, C., Roth, W., Mehta, J., & Harding, D. (2004). *Rampage: The social roots of school shootings*. New York, NY: Basic Books.
- O'Toole, M. (2000). *The school shooter: A threat assessment perspective*. Quantico, VA: Federal Bureau of Investigation Academy, National Center for the Analysis of Violent Crime, Critical Incident Response Group.
- Pah, A. R., Hagan, J., Jennings, A. L., Jain, A., Albrecht, K., Hockenberry, A. J., & Amaral, L. A. N. (2017). Economic insecurity and the rise in gun violence at US schools. *Nature Human Behaviour, 1*(2). <https://doi.org/10.1038/s41562-016-0040>
- Peterson, J. & Densley, J. (2019). The Violence Project Mass Shooter Database. Retrieved from <https://www.theviolenceproject.org>
- Price, J. H., Kinnison, A., Dake, J. A., Thompson, A. J., & Price, J. A. (2007). Psychiatrists' practices and perceptions regarding anticipatory guidance on firearms. *American Journal of Preventive Medicine, 33*(5), 370–373. <https://doi.org/10.1016/j.amepre.2007.07.021>

- Price, J. H., Thompson, A., Khubchandani, J., Wiblehauser, M., Dowling, J., & Teeple, K. (2013). Perceived roles of emergency department physicians regarding anticipatory guidance on firearm safety. *The Journal of Emergency Medicine*, 44(5), 1007–1016. <https://doi.org/10.1016/j.jemermed.2012.11.010>
- Reamer, F. G. (2018). *Social work values and ethics* (5th ed.). New York, NY: Columbia University Press.
- Richards, J. E., Hohl, S. D., Segal, C. D., Grossman, D. C., Lee, A. K., Whiteside, U., Luce, C., Ludman, E. J., Simon, G., Penfold, R. B., & Williams, E. C. (2021). “What will happen if I say yes?” perspectives on a standardized firearm access question among adults with depressive symptoms. *Psychiatric Services*, 72(8), 898–904. <https://doi.org/10.1176/appi.ps.202000187>
- Roszko, P. J. D., Ameli, J., Carter, P. M., Cunningham, R. M., & Ranney, M. L. (2016). Clinician attitudes, screening practices, and interventions to reduce Firearm-Related injury. *Epidemiologic Reviews*, 38(1), 87–110. <https://doi.org/10.1093/epirev/mxv005>
- Sarteschi, C. M. (2016). An examination of thwarted mass homicide plots and threateners. *Aggression and Violent Behavior*, 30, 88–93. <https://doi.org/10.1016/j.avb.2016.06.010>
- Savitsky, L., Illingworth, M., & DuLaney, M. (2009). Civilian Social Work: Serving the Military and Veteran Populations. *Social Work*, 54(4), 327–339. <https://doi.org/10.1093/sw/54.4.327>
- Schildkraut, J. (2021, July). *Can mass shootings be stopped? To address the problem, we must better understand the phenomenon*. <https://rockinst.org/wp-content/uploads/2021/07/Public-Mass-Shootings-Brief.pdf>
- Seal, K. H., Metzler, T. J., Gima, K. S., Bertenthal, D., Maguen, S., & Marmar, C. R. (2009). Trends and Risk Factors for Mental Health Diagnoses Among Iraq and Afghanistan Veterans Using Department of Veterans Affairs Health Care, 2002–2008. *American Journal of Public Health*, 99(9), 1651–1658. <https://doi.org/10.2105/ajph.2008.150284>
- Silva, J. R. (2019). *A media distortion analysis of mass shootings* (Doctoral dissertation). City University of New York
- Silva, J. R. (2021). Police victimized by firearms during mass shootings (1966–2019). *Journal of Threat Assessment and Management*, 8(1–2), 48–64. <https://doi.org/10.1037/tam0000161>
- Silva, J. R., & Greene-Colozzi, E. A. (2019). Fame-seeking mass shooters in America: Severity, characteristics, and media coverage. *Aggression and Violent Behavior*, 48, 24–35. <https://doi.org/10.1016/j.avb.2019.07.005>
- Silva, J. R., & Greene-Colozzi, E. A. (2021a). Mass shootings and routine activities theory: The impact of motivation, target suitability, and capable guardianship on fatalities and injuries. *Victims & Offenders*, 16(4), 565–586. <https://doi.org/10.1080/15564886.2020.1823919>
- Silva, J. R., & Greene-Colozzi, E. A. (2021b). An exploratory study of failed mass shootings in America. *Security Journal*. <https://doi.org/10.1057/s41284-020-00281-z>
- Silver, J., Horgan, J., & Gill, P. (2018). Foreshadowing targeted violence: Assessing leakage of intent by public mass murderers. *Aggression and Violent Behavior*, 38, 94–100. <https://doi.org/10.1016/j.avb.2017.12.002>
- Silver, J., Simons, A., Craun, S. (2018). A study of the pre-attack behaviors of active shooters in the United States between 2000 and 2013. Federal Bureau of investigation. Retrieved from <https://www/fbi-gov.proxy.lib.fsu.edu/file-repository/pre-attack-behaviors-of-active-shooters-in-us-2000-2013.pdf>
- Simonetti, J. A., & Brenner, L. A. (2019). Promoting firearm safety as a suicide prevention strategy within health care systems: Challenges and recommendations. *Psychiatric Services*, 71(3), 298–300. <https://doi.org/10.1176/appi.ps.201900286>
- Slovak, K., Brewer, T. W., & Carlson, K. (2008). Client Firearm Assessment and Safety Counseling: The Role of Social Workers. *Social Work*, 53(4), 358–366. <https://doi.org/10.1093/sw/53.4.358>
- Stallings, R., & Hall, J. C. (2019). Averted targeted school killings from 1900–2016. *Criminal Justice Studies*, 32(3), 222–238. <https://doi.org/10.1080/1478601x.2019.1618296>
- Traylor, A., Price, J. H., Telljohann, S. K., King, K., & Thompson, A. (2010). Clinical psychologists’ firearm risk management perceptions and practices. *Journal of Community Health*, 35(1), 60–67. <https://doi.org/10.1007/s10900-009-9200-6>
- U.S. Department of Veterans Affairs. (2021, October). *Care management and social work*. <https://www.patientcare.va.gov/caremanagement.asp>. <https://www.patientcare.va.gov/caremanagement.asp>
- Vossekuil, B., Fein, R., Reddy, M., Borum, R., & Modzeleski, W. (2002). The final report and findings of the Safe School Initiative: Implications for the prevention of school attacks in the United States. Washington, DC: United States Secret Service & United States Department of Education.
- Wiggins, O. (2019, January 16). Red-flag law in maryland led to gun seizures from 148 people in first three months. *Washington Post*. [https://www.washingtonpost.com/local/md-politics/red-flag-law-in-maryland-led-to-148-gun-seizures-in-first-three-months/2019/01/15/cfb3676c-1904-11e9-9ebf-c5fed1b7a081\\_story.html](https://www.washingtonpost.com/local/md-politics/red-flag-law-in-maryland-led-to-148-gun-seizures-in-first-three-months/2019/01/15/cfb3676c-1904-11e9-9ebf-c5fed1b7a081_story.html)
- Wintemute, G. J., Pear, V. A., Schleimer, J. P., Pallin, R., Sohl, S., Kravitz-Wirtz, N., & Tomsich, E. A. (2019). Extreme risk protection orders intended to prevent mass shootings. *Annals of Internal Medicine*, 171(9), 655–658. <https://doi.org/10.7326/m19-2162>
- Zwilling, M. (2013). Negative binomial regression. *The Mathematica Journal*, 15. <https://doi.org/10.3888/tmj.15-6>